FIGURE 1

101 START

102 Determine Duration of Media File Object

104 Determine Bandwidth Available

106 Ask Operator for Deadline or Tx Time

108 Estimate cost of bandwidth

110 Step through table A and multiply Media Duration by encoding efficiency indexes.

Create a second table B to hold resulting values for estimated encoding time, estimated file size, and estimated transmission time (based on bandwidth) for this specific object.

112 Select entries from Table B which have transmission times less than time remaining - if thumbnail transmission is specified Select entries from Table B which have transmission times + thumbnail transmission times less than time remaining

114 Sort table B by "Quality"

116 For each predefined screen resolution, select the top "n" table entries by Quality (for instance, using predefined screen resolutions of 720x480, 320x240, 160x120 and "n" value of 3)

118 Display results in a graphic user interface along with estimated transmission durations, completion times and costs

120 Continue or change deadline?

Change

Contine

122 Allow user to optionally input metadata

124 Place encoding and transmission request in queue with selected encoding properties

Transmit Queue

208

Select next encoding and transmission request from Queue

210

Transmit File

Encode Queue

202

Select next encoding and transmission request from Queue

204

Encode File

206

Place file on Transmit Queue

200
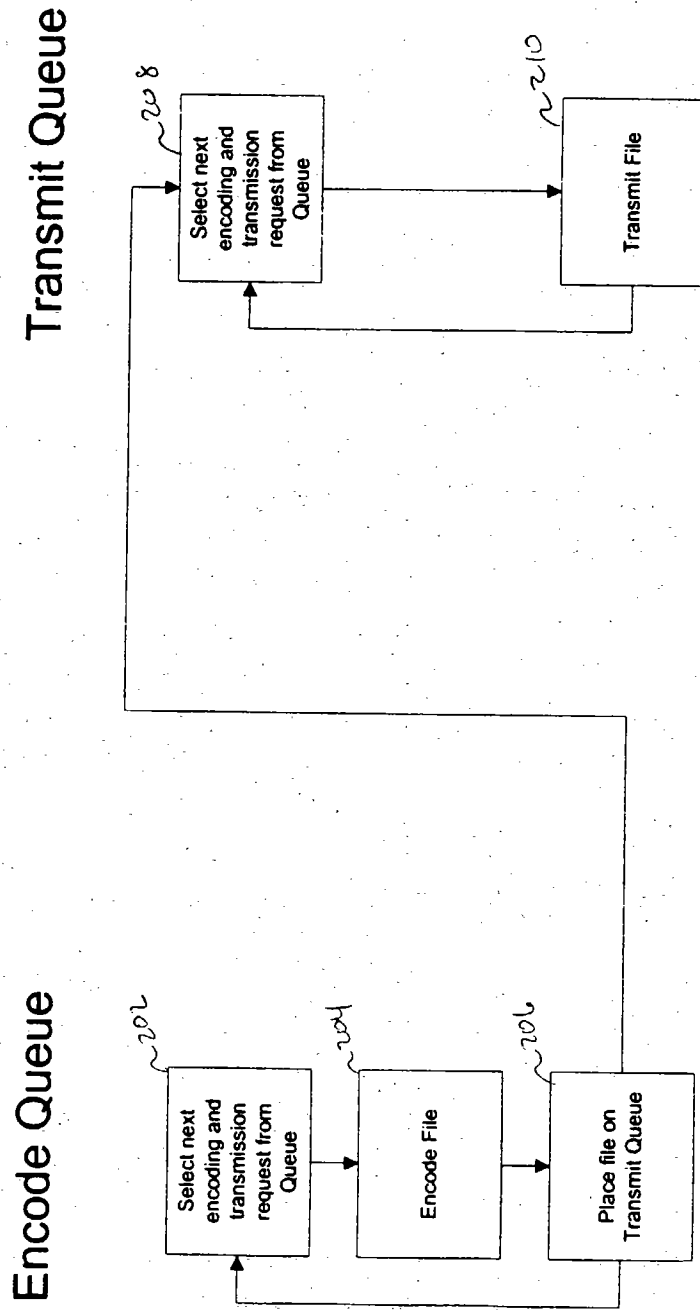
FIGURE 2

A - Verify Connection Information
Connection Type to Be Used: [Single Channel ISDN ▼]   Connection Speed For Connection: 62.50 *kbps*
                                                       Average Speed For This Connection: 1136.65 *kbps*
☐ Use Prior Results for Calculations

Figure 3A: Connection Selection Interface

B - Set Time/Encoding Parameters
Media MUST   [2 :20 PM ▲▼]   ○ Producer Preview   ⦿ Average Quality   Current
Be In By: ○ VHS Quality   ○ Good Quality   Time: 2:15:00 PM

Figure 3B: Deadline Selection Interface

Figure 3C: Connection configuration interface

C - Set Compression Options

Encode And Send

Full Resolution

Medium Resolution:

Very Low Resolution:

30fps Time: 3 Min Cost $0.00

30fps Time: 4 Min Cost $0.00
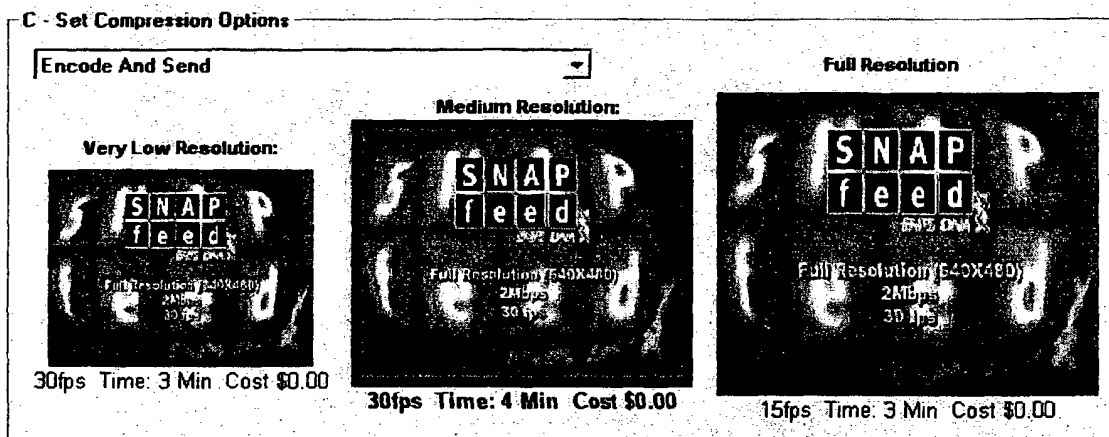
15fps Time: 3 Min Cost $0.00

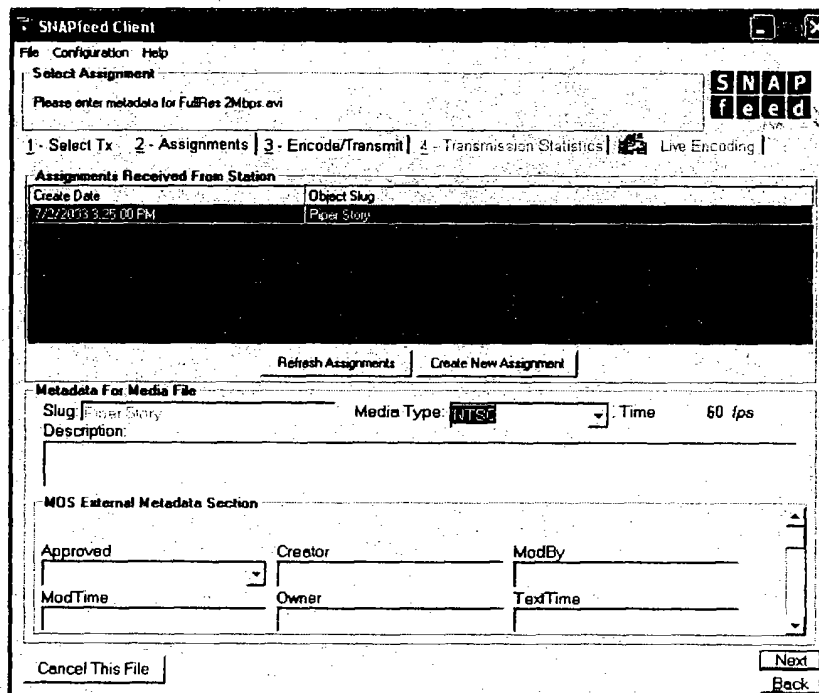**Figure 3D: Presentation of calculated encoding options to user**

Figure 3E: Metadata entry interface

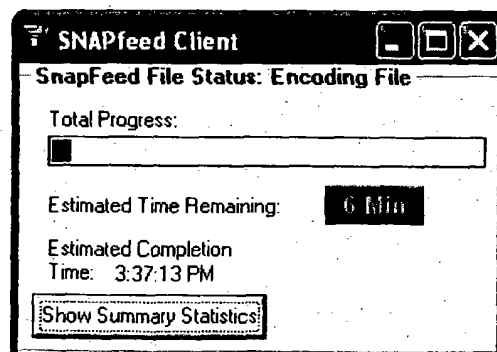**Figure 3F: Basic Processing Interface**

SNAPfeed Client [_] [X]

File   Configuration   Help

Encoding "Piper Story"...
Full Path:
d:\FullRes 2Mbps.avi

Duration (s):   File Size (kbytes):
18.99   70320.00

S N A P
f e e d

| 1 - Select Tx | 2 - Assignments | 3 - Encode/Transmit | 4 - Transmission Statistics | 🖳 Live Encoding |

Connection Information Used

Connection Type to Be Used: [Single Channel ISDN ▼]

☐ Use Prior Results for Calculations

Bandwidth For This Connection: 62.50 *kbps*
Average Bandwidth: 1136.65 *kbps*

Time/Encoding Parameters Selected

Media MUST
Be In By: [3 : 39 PM ▲▼]

Current
Time: [3:31:59 PM]

File Statistics

Uncompressed File Size: 70320.00 *kBytes*
Length: 18.99 *secs*

Encode Progress (Pass 1): 27.39% Complete

[████████   ]

Transfer Progress: 0.00   Of   0.00   KB Sent

[   ]

Total Progress: (Encoding) 11.44% Complete   0.00 *kbps*

[███   ]

| Start Time: | Estimated Completion | Updated Estimated |
| 03:31:09 PM | Time: 3:37:13 PM | Time: 3:36:44 PM |

Hide Full Stats | Pause Transfer | Cancel Encode

Video Resolution: 640 X 480
Video Frame Rate: 30 *fps*

Video Bit Rate:
568000 *bps*

Audio Sampling Rate: 44100 *kHz*
Audio Channels: 2

Audio Bit Rate:
32000 *bps*

Estimated File Size:	1426.36	*kbytes*
Actual File Size:	?	*kbytes*
Estimated Encode Time:	3	*Minutes*
Update Encode Time:	3	*Minutes*
Estimated Transfer Time:	4	*Minutes*
Updated Transfer Time:	4	*Minutes*
Estimated Total Time:	6	*Minutes*
Updated Total Time:	6	*Minutes*

Encoder Preview

[ ]

Estimated Time
Remaining:
[5 Min]

Cost And Time Information For File

Cost To Send This File: [$ 0.00]   Time To Encode/Send This File: [6   *Minutes*]

[Back]

Figure 3G: Advanced Processing Interface

Computer System
400

Processor 404

Main Memory 408

Display Interface 402 ◄── Display 430

Secondary Memory 410

Hard Disk Drive 412

Removable Storage Drive 414 ── Removable Storage Unit 418

Interface 420 ── Removable Storage Unit 422

Communication Infrastructure 406

428

Communications Interface 424

Communications Path 426

FIG. 4